Case 2617

Colias alfacariensis Ribbe, 1905 (Insecta, Lepidoptera): proposed availability as a senior synonym of '*Colias australis* Verity, 1911'

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Abstract. The purpose of this application is confirmation that the specific name *alfacariensis* Ribbe, 1905 is available for the European butterfly known in English as Berger's Clouded Yellow, and that the often used name *australis* Verity, 1911 is not available from its first publication.

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1. Berger's Clouded Yellow was first distinguished as a species distinct from *Colias hyale* Linnaeus, 1758 (the Pale Clouded Yellow) by Berger (1944; 1948; Berger & Fontaine, 1947–8). In these short papers the new species was differentiated from *C. hyale*, and the specific name *alfacariensis* Ribbe, 1905 (p. 137) was 'provisionally' adopted.

2. The butterfly has often been called *Colias australis* Verity, 1911 (p. 347). There is no consensus as to whether *alfacariensis* or *australis* should be used, as the following examples show:

(a) *Colias alfacariensis* Ribbe, 1905
Reissinger (1971); Schnack (1985).
(b) *Colias australis* Verity, 1911
Kloet & Hincks (1972); Dutreix (1980; used only 'provisoirement'); Higgins & Riley (1980); Leraut (1980); Koçak (1981); Berger (1986).
(c) *Colias alfacariensis* Berger, 1948
Kudrna (1982); Schadewald (1986).

3. The problem arises because both *alfacariensis* and *australis* were first published in ways which might, under Article 45 of the Code, be regarded as denoting infrasubspecific rank.

4. In a paper entitled 'Einige neue Formen von Schmetterlingen aus Andalusien' Ribbe (1905, p. 137) wrote: *'Colias hyale ab. alfacariensis.* Ich fing in der nördlich von Granada gelegenen Sierra de Alfacar, die gegen 1800 m hoch ist, eine Form von Colias hyale, die auffällig von solchen hyale, die aus andern Gebieten stammen, abweicht' ('North of Granada in the Sierra de Alfacar, which are almost 1800 m high, I found a form of *Colias hyale* which markedly differs from *hyale* found in other regions'). He described the differences briefly but clearly. In a later publication Ribbe (1910, p. 103) said that *only* a *'hyale* var.' was found in the Sierra de Alfacar, and on pp. 107 and 125 he referred to this population as *'C. hyale ab. alfacariensis'*. On the latter page Ribbe reported that 'Alfacariensis fliegt von Mitte Mai bis Mitte Juli in allen Tälern in der Sierra de Alfacar' (*'Alfacarienis* flies from mid-May to mid-July in all the valleys of the Sierra de Alfacar'). In 1912, in a list (p. 380) of 'In Andalusien allein heimische Arten' ('Species occurring only in Andalusia') and on p. 382 under 'Rein Iberische Arten' ('Pure Iberian species') Ribbe included *'Colias hyale ab. (v.) alfacariensis'*; the fact that the taxon is actually widely distributed is irrelevant to the present case.

5. In the Glossary of the Code 'aberration' is defined as 'a term which, *if used to denote a number of individuals* [our italics] within a species, unequivocally signifies infrasubspecific rank'. It is plainly meant to refer to a minority of aberrant individuals (e.g. albino specimens) rather than to a uniform geographically defined *population* as described by Ribbe (1905).

6. Verity (1911, Supplément, p. 347) said of *C. hyale*: 'En Andalousie vole une belle race bien distincte par la teinte jaune du ♂ excessivement vive . . . [*australis*]'.

7. In a letter to Berger (reproduced in Hemming & Berger, 1950) Francis Hemming, the then Secretary of the ICZN, wrote (p. 7) 'le nom *alfacariensis* a été donné comme nom infrasubspécifique à un exemplaire de votre espèce nouvelle', despite the fact that Ribbe had described a population and *not* an individual butterfly. Hemming continued '. . . en 1911 Verity publiait le nom subspécifique *australis* pour la population existant en Andalousie de votre espèce nouvelle', and stated that this was therefore the valid name. Convinced by 'l'exposé si complet et si lumineux de M. F. Hemming' Berger accepted (Hemming & Berger, 1950, p. 9) the name *australis,* and it has been widely used.

8. However, Hemming was clearly mistaken in saying that Verity (1911) had given *australis* subspecific rank. Verity illustrated on p. xiii of his Index Systématique his hierarchical classification, and on pp. xxxiv–xxxv applied it to *C. hyale* thus:

(p. xiii)	GENRE	(pp. xxxiv–v)	COLIAS
	espèce		*Colias hyale*
	sous-espèce		*hyale*
	race		*australis*

From this it is evident that Verity gave *australis* the infrasubspecific status of a race of *C. hyale hyale* (another race was given as *C. h. h. hyale*).

9. Dutreix (1980, p. 298) noted that Reissinger (1971, p. 159, figs 1 and 2) had designated one of Ribbe's specimens as lectotype of *C. alfacariensis,* and that the specimen designated by Riley (1954) as lectotype of *'C. australis* Verity, 1911' is of

doubtful provenance and may be an abnormal individual (Warren, 1954). Both Dutreix (1980) and Reissinger (1971) discuss the literature of the species at some length.

10. We contend that the name *alfacariensis* Ribbe, 1905 is available, even though in the name Ribbe used the expression '*ab.*' rather than 'variety' or 'form' as mentioned in Article 45g; in any case (see para. 4) his paper later used 'Formen' and 'eine Form von Colias hyale'. We do not believe that *australis* is available from Verity (1911), since it was only the fourth name in a 'tetranomen' and so is infra-subspecific under Article 45f (iii).

11. Accordingly, we ask the International Commission on Zoological Nomenclature:

(1) to place on the Official List of Specific Names in Zoology the name *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*;
(2) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *australis* Verity, 1911, published as an addition to the trinomen *Colias hyale hyale* and therefore denoting infrasubspecific rank.

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